

BVH-500PS

1 inch portable
videocorder

SONY
Broadcast



The Sony Broadcast BVH-500PS is a portable 1 inch Videocorder for 625-line PAL and SECAM operation, using a high band direct FM recording system to EBU type 'C' format. With its recordings fully interchangeable with the Sony Broadcast BVH-1100PS production recorder, the BVH-500PS combines the professional advantages of the Sony Broadcast 1 inch high band recording format with the field advantages of light weight, small size and battery operation.

FEATURES

Camera Interface

BVP series cameras connect directly with the BVH-500 PS, providing camera operation from the VTR battery and interface of control functions and recorder status indications.

Interchangeability

The BVH-500PS is specifically designed to complement the Sony Broadcast BVH-1100PS 1 inch professional high band recorder. All basic specifications such as tape format, carrier mode, etc., are identical. Battery operation, small size and light weight make the BVH-500PS ideal for any field production situation.

Portability

1 Hour Recording Time

Just over sixty minutes continuous recording with one 9 inch reel of Sony Broadcast V-16 high density video tape. A high resolution digital drum servo and electronic tape control system minimise gyroscopic errors and provide precise tape tension under all operating conditions.

Advanced Tape Control Systems

Monitoring Capability

The BVH-500PS features monochrome playback capability for on-location monitoring.

Built-in EBU Time Code Generator

Time code recording facility on third audio track.

Built-in Record Current Optimizer

Allows rapid adjustment for quick field set up.

Rugged Housing

The BVH-500PS housing is specially designed for dustproof and weatherproof operation.

Back-space Assemble Edit Function

The BVH-500PS is provided with a back-space assemble edit function. Perfect and precise assemble editing is possible with no picture interference at editing points. This makes the BVH-500PS especially suitable for applications which require rough editing during recording such as field location drama.

Tape Timer

The digital tape timer can be switched to read either elapsed tape time or the time code generator output. Elapsed tape time count is stored for an hour after recorder power has been turned off.

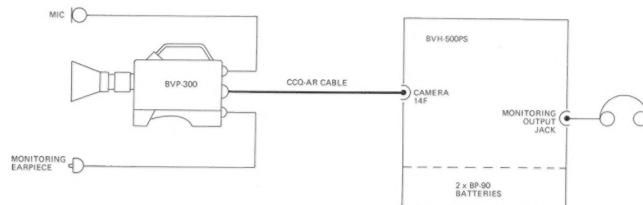
Confidence Replay Head

A stationary video playback head monitors the sync tip signal during recording and triggers an alarm indicator to warn of recording faults.

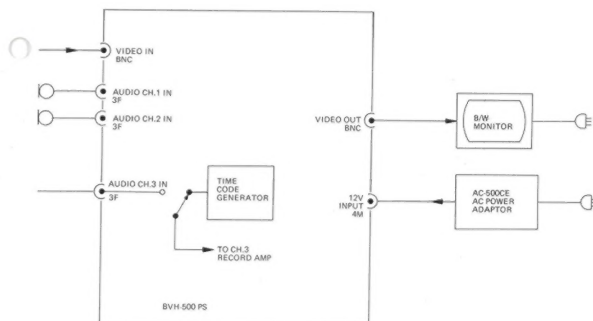
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CONNECTIONS

TYPICAL SYSTEM CONFIGURATIONS



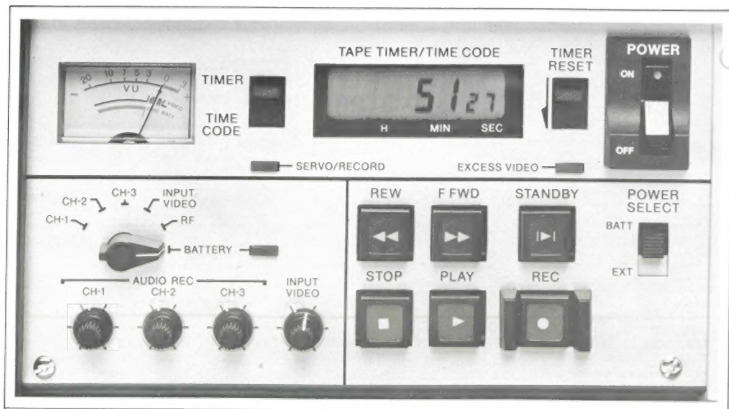
FIELD OPERATION WITH BVP-300 CAMERA, BATTERY OPERATION



AC POWER OPERATION, WITH TIME CODE RECORDING AND CHECK MONITORING



SIDE CONNECTOR PANEL



FUNCTION CONTROL PANEL

SPECIFICATIONS

VIDEO SIGNALS

Video input	1v p-p, 75 ohms
Colour framing input pulse	6.25 Hz 50% duty cycle, TTL level
Monitor output	1v p-p, 75 ohms (unlocked colour)

VIDEO PERFORMANCE, BVH-1100PS REPLAY

Bandwidth	5.5 MHz \pm 0.5 dB 6 MHz - 3 dB
Signal/noise ratio	43 dB
Differential Gain	4% (with Sony Broadcast BVT-2000P/S TBC)
Differential Phase	4° (with Sony Broadcast BVT-2000P/S TBC)
LF Linearity	2%
Transient Response (2T pulse)	1% K
Moire	-35 dB (75% colour bars)
Chrominance delay	25 ns

AUDIO SIGNALS

Inputs	Switchable mic/line, 600 ohms, balanced Line sensitivity +23 to -22 dBm Mic sensitivity -60dBm
Headphone Output	-30 to -13 dBu

AUDIO PERFORMANCE, BVH-1100PS REPLAY

Frequency response	50 Hz - 15 kHz \pm 1.5 dB -3.0 dB (Ch.1 - Ch.3)
Signal/noise ratio	56 dB, Ch.1 and Ch.2 50 dB, Ch.3 (at 3% dist)
Distortion	1.2% (at operating level)
Wow and flutter	Less than 0.12% RMS, unweighted
Crosstalk	-60 dB between any two tracks at 1 kHz

GENERAL

Power requirements	12v DC, 4.7A
Operating temperature	0°C - 40°C
Humidity	10 - 90% (non-condensing)
Tape Speed	23.98 cm/s (9.46 inch/s)
Writing Speed	21.39m/s (70.3 ft/s)
Recording time	1 hr 4 mins with 9 inch reel
Fast forward/rewind time	4.5 mins max with 9 inch reel
Lock-up time	Less than 3.5 s
Operating position	Horizontal or vertical
Recommended tapes	Sony Broadcast V-16 series
Reel size	8, 9, 9.25 and 9.5 inch, NAB type
Battery life	Approximately 1 hour 30 mins with two BP-90 batteries

ACCESSORIES

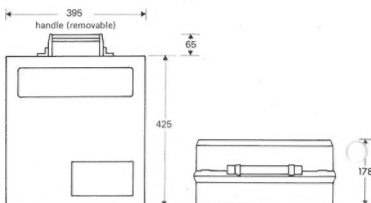
Included

Take up reel
Operation and Maintenance
manual

Optional

BP-90 battery
BC-210CE Battery charger
AC-500CE AC power adaptor
BVR-500 Remote control unit
CLP-550PS Colour playback
adaptor

DIMENSIONS



ALL DIMENSIONS IN MILLIMETRES

WEIGHT - 22kg; INCLUDING BATTERY,
TAPE AND REEL

SONY
Broadcast

Contact your local
Sony Distributor
or write to

Sony Broadcast Ltd.

City Wall House
Basing View, Basingstoke
Hampshire RG21 2LA
United Kingdom

Telephone 0256 55011
Telex 85 84 24

Preliminary Product Information



CLP-550PS COLOUR PLAYBACK ADAPTOR

The CLP-550PS is a direct processing Colour Playback Adaptor for the BVH-500PS 1 inch portable Videocorder. In conjunction with a BVT-2000P/S Time Base Corrector it gives full broadcast quality colour replay and also provides video and audio monitoring facilities.

FEATURES

Simple multicore cable interface with BVH-500PS.
Video and audio monitoring selectors and audio level meter.
Drop out signal for external DCC operation.

SPECIFICATIONS

Video Performance, BVH-500PS Replay

Bandwidth	25Hz - 5.5MHz ± 0.5 dB, 6MHz -3dB
Signal/Noise ratio	43dB
Differential gain	4% (with Sony Broadcast BVT-2000P/S TBC)
Differential phase	4° (with Sony Broadcast BVT-2000P/S TBC)
Transient response (2T pulse)	1 μ s
LF linearity	1%
Moiré	-35dB (75% colour bars)
Chrominance delay	25ns

Audio Performance, BVH-500PS Replay

Frequency response	50Hz - 15kHz ± 1.5 dB -3.0dB
Signal/Noise ratio	54dB, Ch.1 and Ch.2 48dB, Ch.3 (at 3% dist)
Distortion	1.2% (at operating level)
Crosstalk	-60dB between any two tracks at 1kHz

SIGNAL INPUTS

Adaptor in	BVH-500PS interface
Video in) TBC in) To Waveform Spare in) selector	1V p-p 75 ohms or bridging 1V p-p 75 ohms 1V p-p 75 ohms

SIGNAL OUTPUTS

Video	2 at 1V p-p, 75 ohms
Waveform selector	Output level according to source selected, 75 ohms
Drop out signal	TTL level pulse or 0.3V p-p RF 75 ohms, selectable
Audio line	Ch.1-3, +8dBm/-16dBm, selectable, 600 ohms balanced
Audio monitor	-10dBm, with monitor level control at maximum, 600 ohms balanced. (Output disconnected when the headphone monitoring jack is used.)
Headphone	8 ohms, unbalanced

GENERAL

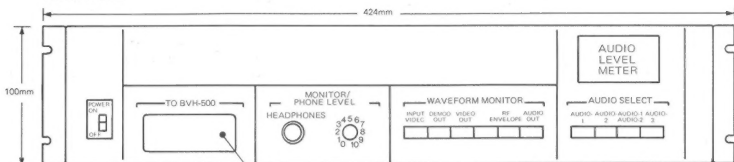
Power input	100/120/220/240V $\pm 10\%$ 50/60 Hz
Power consumption	40W
Operating temperature	0°C - 40°C

INCLUDED ACCESSORIES

2 metre BVH-500/CLP-500 interconnecting cable
Power cable
Rack mounting brackets
Operation and Maintenance manual

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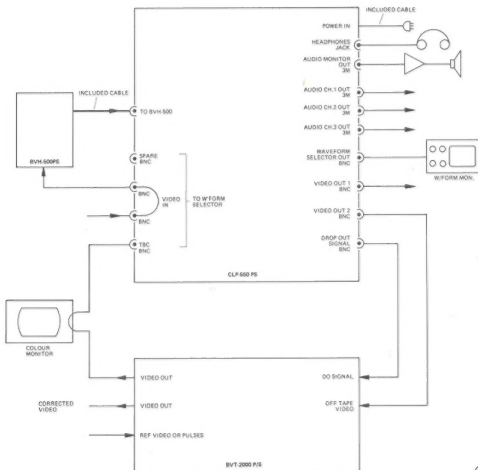
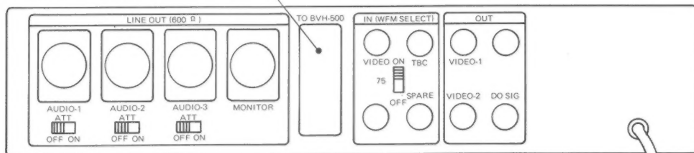
FRONT PANEL



DEPTH 462mm WEIGHT 13 kg

ALTERNATIVE
POSITIONS
FOR BVH-500
INTERFACE CONNECTOR

REAR CONNECTOR PANEL



Contact your local
Sony Distributor
or write to

SONY
Broadcast

Sony Broadcast Ltd.

City Wall House
Basing View, Basingstoke
Hampshire RG21 2LA
United Kingdom

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